

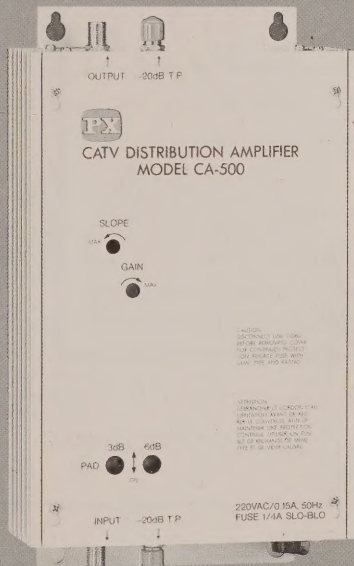


Priority in Service Quality

**CABLE TV SYSTEMS**

# Model: CA-500

## CATV DISTRIBUTION AMPLIFIER



**Double Module IC  
High Gain 50dB  
High Power**

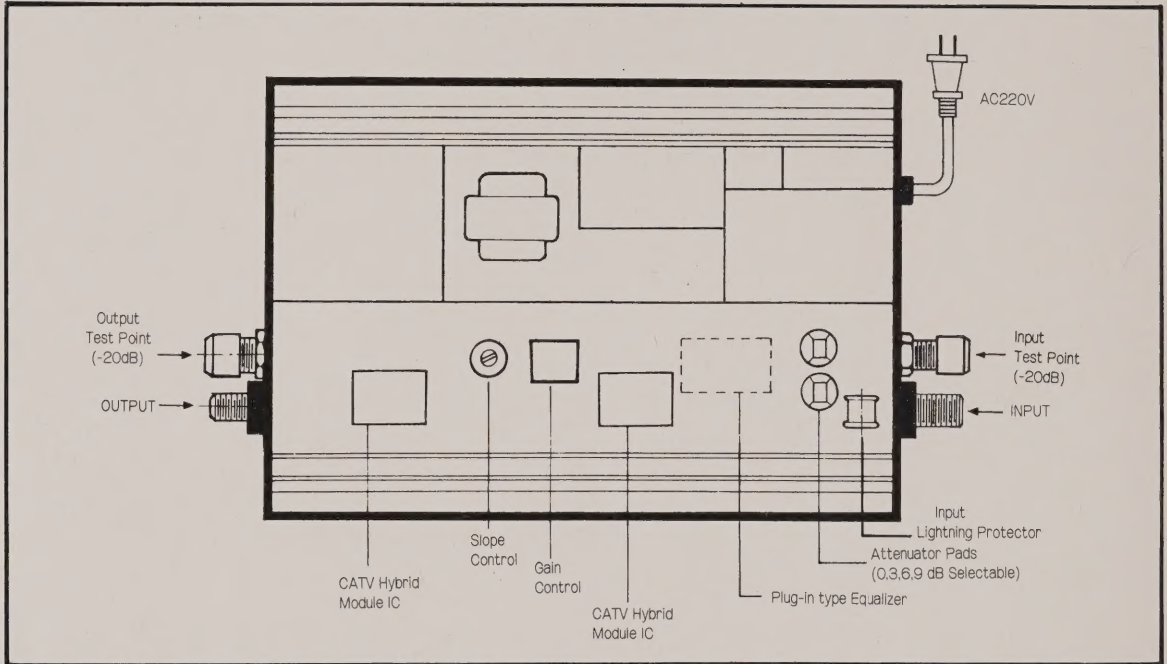
**CA-500**

## FEATURES:

1. The special design for CATV Distribution system and for multi-dwelling units such as apartments, hotels, motels, office buildings, hospitals and schools.
2. Double CATV hybrid integrated circuit design for 50dB high gain amplification and high power output distribution.
3. Various gain control to meet the required output level:
  - a. Plug-in type attenuator pads (0, 3, 6, 9dB selectable).
  - b. Tuning type gain control (0-20dB adjustable).
4. Various slope control to meet the feature of cable attenuation:
  - a. Plug-in type equalizer (0, 12, 22.5dB option; when ordering, please specify and order separately.)
  - b. Tuning type slope control (0-12dB adjustable).
5. Equipped input/output test point (-20dB).
6. Built-in input lightning protector for safety.
7. Compact aluminum alloy housing, providing efficient thermal dissipation.

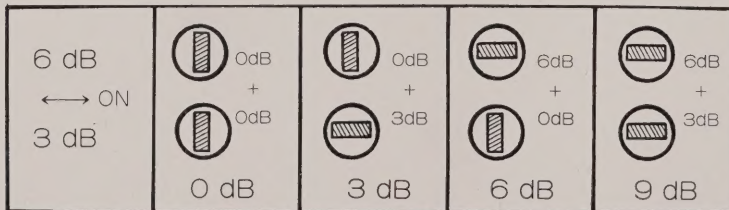
# INSTALLATION

## CA-500 Functional Diagram



1. After input & output signals are connected, plug AC power cord into the AC outlet.
2. Open the cover for signal level adjustment.
  - Plug the equalizer into amplifier.
  - Adjust the gain control for making all the channels output signal level to be  $106\text{dB}_{\mu\text{V}}$  ( $+46\text{dBmV}$ ). must use the attenuator pads firstly, then use the gain control ( $0-20\text{dB}$ ) for final revision.

Change the direction of attenuator pads as the following illustration for 0dB, 3dB, 6dB, 9dB attenuated value.



- Adjust the slope control for making all the channels output signal reach to a certain level.
- Repeat b.c. adjusting steps if necessary.



3. The methods of Equalizers Selecting:

- a. Calculate the cable loss for 300 MHz (only calculate the signal loss of coaxial cable, but not the other distributions).
  - b. Select the identical value equalizer based on the (a)'s calculated value. If you have no identical ones, select the lower value equalizer and do slope control adjustment
  - c. There are options for 0, 12, 22.5dB equalizer. (Equalizer should be ordered separately and it's not equipped with CA-500 amplifier).
4. The input signal level of CA-500 amplifier has to be higher than  $60\text{dB}_{\mu\text{V}}$  ( $0\text{dBmV}$ ).
5. The input & output of CA-500 amplifier are equipped with test point ( $-20\text{dB}$ ) for measuring the signal level.
6. When both the input & output terminals of CA-500 amplifier connect with the cable connectors, the use of waterproof's caps and tapes are needed.

# CA-500 CATV DISTRIBUTION AMPLIFIER

## SPECIFICATIONS:

B5

Items	Specifications
Frequency Range	45-300MHz (45-450MHz or 45-550MHz option)
Frequency Response	$\pm 1$ dB
MAX. Gain	50dB
Gain Control	0-20dB adjustable
Attenuator Pads	0, 3, 6, 9dB selectable
Slope Control	0-12dB adjustable
Equalizer	0, 12, 22.5dB option (when ordering, please specify and order separately)
MAX. Output Level	110dB (for NTSC 36 channels input) (for PAL B 28 channels input)
Noise Figure	7 ~ 9dB
Input/Output Return Loss	16dB nom.
Cross Modulation	-75dB: 50dBmV
Second Order	-70dB: 49dBmV
Composite Triple Beat	-57dB: 49dBmV
Hum Modulation	-70dB
Lightning Conductor	500A (10/100 $\mu$ S PULSE, 1.5x40 $\mu$ S)
Input/Output Test Point	-20dB
Input/Output Impedance	75 ohm
Power Requirement	AC220V 50Hz 110mA or AC110V 60Hz 100mA
Temperature Range	$\pm 40^{\circ}$ C
Dimensions	275(W)x162(D)x63(H)mm
Weight	2.4kgs.

+106  
Fun 60

-61

-75

-61

-65